

# AMERICAN RAILROAD JOURNAL.

These are estimates given for IRON WORKS to be established in the state of the UNITED STATES.

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# STEAM NAVIGATION, COMMERCE, FINANCE,

## INSURANCE, BANKING, MINING, MANUFACTURES.

**HENRY V. POOR, *Editor.***

**SATURDAY, SEPTEMBER 3, 1859.**

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NEW-YORK

**JOHN H. SCHULTZ & CO.**  
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# ROOFING.

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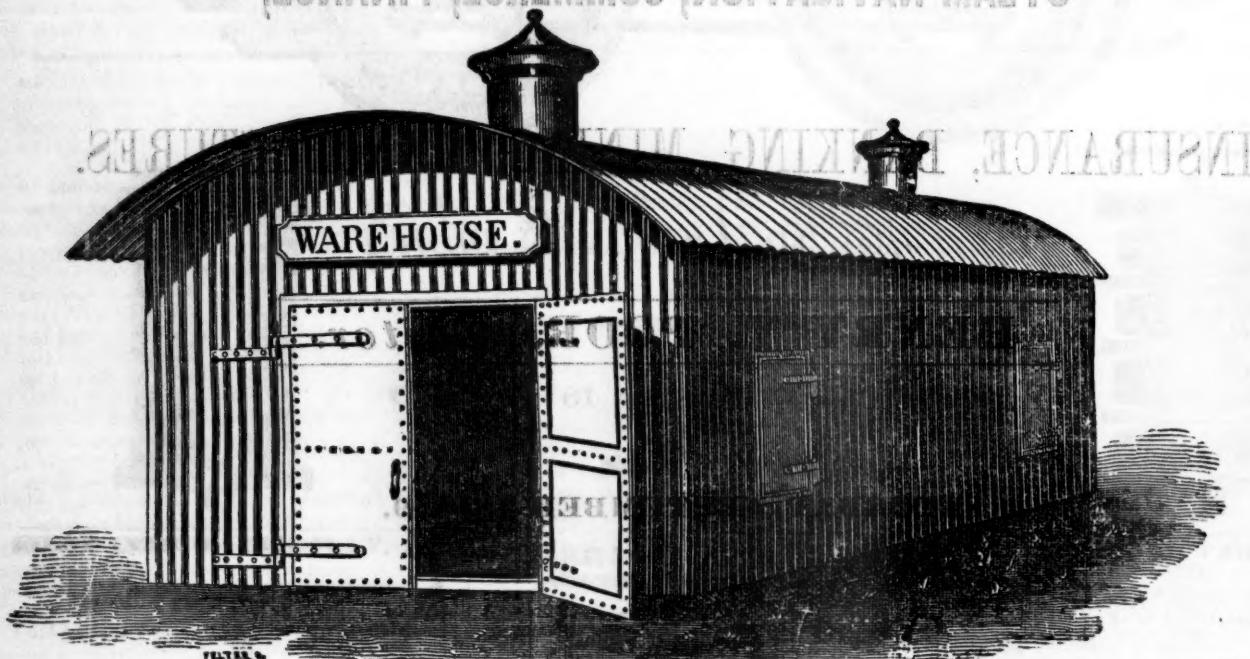
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### American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & CO. NO. 9 SPRUCE ST.

New York, Saturday, September 3, 1859.

#### New York and Erie Railroad.

We give below the report of the committee of directors of this road, appointed to present a plan for the re-organization of the company and the action on the same by the directors.

To the Bond and Stockholders of the New York & Erie Railroad Company:—

The embarrassments of the company and the action of its creditors having resulted in the appointment of a receiver, the directors have lost no time in endeavoring to mature a plan by which the interests of all would be promoted. The most practicable means of harmonizing the various interests involved is contained in the following report of their committee. The committee appointed to devise a plan to extricate the New York and Erie railroad from its present difficulties, report that the capital stock and indebtedness of the company are represented as follows:—

First mortgage bonds .....	\$3,000,000
Second do. .....	4,000,000
Third do. .....	6,000,000
Fourth do. .....	3,705,000
Fifth do. .....	1,253,500
 Total mortgage debt .....	\$17,958,500
Unsecured bonds, and interest due on them .....	7,825,150
Capital stock .....	11,000,000
 Total .....	\$36,883,650

Bills payable, for the payment of which \$1,500,000 fourth mortgage bonds are pledged, \$320,000

[The payment of the amount due to employees for past services, and for materials and supplies, is provided for in the order of the court appointing a receiver, for which all the earnings up to 1st of December will be required.]

Coupons due on mortgage bonds .....

Coupons to fall due:—

September 1, on second mortgage bonds, 140,000

Do. third do. 210,000

October 1, on fourth do. 129,675

November 1, on first do. 105,000

December 1, on fifth do. 43,872

Total .....

\$1,159,547

To pay this sum of \$1,159,547, and to reduce the bonded debt and capital stock of the company, the committee propose the following plan:

Convert the unsecured bonds and interest \$7,825,150 at 80 per cent. into new stock at par .....

\$6,260,120

Exchange old stock, \$11,000,000 at 20 per cent. into new stock at par .....

2,200,000

\$8,460,120

Assess this \$8,460,120 of new stock 10 per cent. and give new stock at par .....

\$846,012

Convert two coupons from each of fourth and fifth mortgage bonds, due half in Oct. and Dec., and half in April and June next, into stock at par, 347,095

1,193,107

New stock .....

\$9,653,227

Bonded debt .....

17,958,500

Thus reducing the entire debt and capital stock of the company to \$27,611,727—with the exception of \$210,000 due on 1st Sept. for third mortgage interest, for the payment of which a delay of twelve months is asked.

This plan, of course, contemplates that the second mortgage bonds will be extended either by exchange from the remaining bonds of the third series held for that purpose, or by a new sheet of coupons.

Why should this plan or any similar one be adopted? will be the question asked by those interested.

To the holders of the bonds secured by mortgage we may urge the equity of extending to the unsecured creditors and stockholders the benefit of the property pledged to them beyond the amount necessary to secure their debts. They are

asked to part with no security; their overdue interest is provided for, and all the guarantee of prompt payment in the future that an improved organization on a reduced capital can give will be secured to them.

Whereas, in all probability, if an attempt be made to cut off by foreclosure entirely the unsecured debt and stock such an immense interest will oppose every obstacle that legal ingenuity can invent to thwart the foreclosure, and for years to come this property, the value of which depends so much upon skilful management, will be left to the management of the courts and lawyers; and the revenue, if any, will be kept under the control of the courts, until the legal rights of all the parties are determined. Five years would, in all probability, be as short a time as so large and intricate a subject could make the circumlocution of our courts, during all of which time the receiver must operate the road under the orders of some thirty or forty different judges. That much revenue can be expected from a road thus managed—no matter how good the receiver—is not to be even hoped for.

To the unsecured creditors and stockholders the inducement is still greater.

Their condition at the end of the protracted litigation above alluded to would probably be a total loss of their interest, with the addition of large expenses, while by paying the small assessment, for which they receive new stock, they at once come into possession of the road, and control its management under the new organization.

Taking the gross receipts of the road for the last twelve months, (\$4,500,000,) and it is hard to conceive of any casualty that would ever again reduce them so low; the net result shows more than sufficient to pay 7 per cent. per annum on over \$20,000,000, besides expending during that period \$760,000 on the road; and the statement for the last six months shows even a more favorable result.

By this compromise, if promptly carried out, the stock would, in the opinion of the committee, soon be a dividend paying investment, and the bonds of the company at once take a high position in the market among the favorite railroad securities of the country. Respectfully submitted,

SAMUEL MARSH,

DANIEL DREW,

E. J. BROWN,

HERMANN GELPKKE,

E. K. ALBURTIS.

New York, August 27, 1859.

In submitting the foregoing plan to the creditors and stockholders, the Board of Directors are aware of the difficulty of bringing so many interests, represented by so many parties, to concerted action. The peril in which many of the interests

are placed by the pending legal proceedings calls for prompt action. Those who consider their bonds secured by a pledge of the franchises of the company, if left to the conclusion that they must rely upon the prosecution of their legal rights in the courts, will, of course, suffer no delay in thus enforcing their claims; whereas, by the plan proposed, they will see that their interest will be sooner paid, and their rights more certainly protected, than by the law's delay and uncertainty. But this must be evidenced by immediate action, and it is to induce such action, and to place before those interested a basis of amicable and equitable adjustment that the Directors make the foregoing suggestions, and that they now call on the creditors and stockholders to take prompt measures to protect their several interests, as far as they can be protected by the property and franchises of the company.

In furtherance of this object the Directors have prepared this recommendation in the form of a circular, and directed their Secretary to transmit a copy to the bond and stockholders so far as known, and to furnish copies to all parties calling therefor, and they respectfully solicit that each party interested in the bonds, or who approves of the plan here recommended, should signify such approval to the Secretary, No. 45 Wall street, with as little delay as possible.

By order of the Board.

We take it that some plan similar to the above will be adopted, if any can be; though, with the concern in the hands of the *law*, it is hard to tell what will be done, or how soon the road can be brought to a sale. It is upon effecting such sale, under the 4th or 5th mortgage, that all plans must be predicated. If a sale be effected, the only option left to the unsecured parties will be to come in and get something, or stay out and get nothing. Should any one decline to convert his bonds or stock, and pay such assessment as may be laid upon it, his option will probably be thrown open to the public, upon some terms not yet indicated.

The unsecured bondholders may object to the proposed reduction of 20 per cent. on the conversion of their bonds into *stock*. Were it not for sharing the new stock in common with the old stockholders, thereby diluting their bonds still further, they will be the gainers by having their interests represented by *stock* which will give them the control, management and income of the road, subject only to the rights of the mortgage bondholders. They are now subject to them without any control or voice in the management of its affairs. It is probably for the interest of the unsecured bondholders *not* to cut off the stockholders *entirely*, but to let them come in at a nominal rate, to insure their co-operation and good will. These are worth something—how much, we do not pretend to say. We apprehend, however, that the action of the unsecured bondholders will not be influenced so much by the particular manner in which the general plan to be adopted may be modified, as upon the probable future net income of the road. They are in that position, and in that frame of mind, in which they would gladly accept six, or five, and perhaps four per cent. on their investment, could that rate be secured to them. The first question asked will be, "What expectations can we reasonably entertain, provided we accede to the scheme proposed?" What is the answer that can be given to this question?

The first and most important condition to a favorable one, fortunately exists in the very large income which, under the most adverse circumstances, the road has shown itself to be capable of

earning. For the six years past the gross and net incomes have been as follows:

Year.	Gross income.	Current expenses.	Net earnings.
1854	\$5,359,958	\$3,007,516	\$2,352,442
1855	5,488,993	2,861,875	2,627,118
1856	6,348,990	3,201,996	3,146,994
1857	5,742,606	4,054,681	1,687,975
1858	5,151,616	*3,000,000	1,279,708
1859	*4,500,000	3,871,908	1,500,000
	\$32,592,163	\$19,997,926	\$12,594,237

\* Estimated.

The net earnings for the 6 years have equaled \$2,099,000 annually, being the interest on very nearly \$30,000,000 of dollars! With its finances restored, and the road in good order, it certainly ought to do as well for six years to come. The expenses have been almost exactly 60 per cent. of the gross earnings. A similar per centage for six years to come would pay the interest on all the indebtedness, and allow the accumulation of a handsome surplus.

The difficulty is not so much with the road as with its management. It can take care of its indebtedness could the parties be found who could make all that is capable of being made out of it. It is a burning shame that there cannot be found the capacity requisite to render a great work successful, simply by saving what it earns.

#### English vs. American Rails.

EDITOR RAILROAD JOURNAL.

From the extensive circulation given to the letter written by the superintendent of the Central Georgia railroad respecting the trial of English and American rails, it might be supposed that the question as to the quality of the two makes, had abruptly changed in favor of the American, and that hereafter the English make will become obsolete in this country.

The letter only shows that one lot of American rails are wearing better than a lot of English, while the reverse of this is the case in a score of instances on various roads in this country. The English rails are reported to have cost \$5.00 per ton above current price, it would be interesting to know whether they were purchased from stock in this country or made to the order of the C. G. R. R. Co. as no doubt the American were. The writer offers to put to the test 56 lbs. rails of English make (because he has a sample of that size) against the same size of any American manufacture, before a committee of engineers.

First, by placing a rail upon blocks four feet apart and then putting twelve tons upon it, the deflection not to exceed one-tenth of an inch which the rail must recover when the pressure is taken off.

Second, to place a rail under the same circumstances and subject it to a weight of thirty tons for five minutes.

Third, to allow a weight of six cwt. to fall on the rail at a height of seven feet, three times.

Fourth, to increase the third test to one ton.

Fifth, to place the rails side by side on any road the committee may designate where the engines are of the greatest weight and the traffic known to be of the heaviest description.

That the American mills are turning out some of the best quality of rails there can be no doubt, and that they will ultimately supply every home demand is no less certain; but that time has not yet arrived, and until the American rails have

performed a daily service for twenty years, they will not have reached the practical test and proof that English make are now subject to. R. O.

#### Foreign Commerce of New York.

In the year 1821, the Foreign Imports of this State were only 23 millions out of 62 millions for the whole country, or nearly three-eights of the whole. In 1831, this proportion had increased to over fifty per cent.; in 1841, to nearly 60 per cent., and in 1857, to about two-thirds the whole. From the annual report of the Chamber of Commerce of New York, the following summary is taken, showing the Imports and Exports of the State of New York, compared with those of the United States for the separate years 1821, 1831, 1841, 1851, 1857, 1858, with the Imports per capita of the United States :

#### IMPORTS.

Year.	United States.	State of N. Y.	Pr. ct.
1821	\$62,585,000	\$23,629,000	37.75
1831	103,191,000	57,077,000	55.31
1841	127,946,000	75,718,000	59.18
1851	216,224,000	141,546,000	65.58
1857	360,890,000	236,493,000	65.53
1858	282,613,000	178,475,000	63.00

#### EXPORTS.

Year.	United States.	State of N. Y.	Pr. ct.
1821	\$64,974,000	\$13,160,000	20.25
1831	81,310,000	25,535,000	31.40
1841	121,851,000	33,139,000	27.20
1851	218,388,000	86,007,000	39.38
1857	362,960,000	134,803,000	37.14
1858	324,644,000	108,340,000	33.33

The following table shows the total Exports of the United States and of the State of New York, for each period of ten years, 1821-1830, 1831-1840, 1841-1850; and for the eight years, 1851-1858, with the per centage of the latter compared with the former :

Years.	Exports of the U. S.	Exports of Y. to the U. S.	Exports of N. Y. to the U. S.	Pr. ct. of N. Y. to the U. S.
1821-1830, 10 y.	\$765,748,752	\$215,833,356	28.19	
1831-1840, 10 y.	1,092,341,903	279,588,191	25.60	
1841-1850, 10 y.	1,260,564,583	385,822,935	30.57	
1851-1858, 8 y.	2,206,990,455	850,218,771	38.52	

The following table shows the total Imports of the United States and of the State of New York, for each period of ten years, 1821-1830, 1831-1840, 1841-1850; and for the eight years, 1851-1858, with the per centage of the latter compared with the former :

Years.	Tot. Imports of the U. S.	Tot. Imports of N. Y.	Per cent. of N. Y. of New York.
1821-1830, 10 y.	\$798,633,427	\$363,379,563	45.50
1831-1840, 10 y.	1,302,676,084	753,921,699	57.87
1841-1850, 10 y.	1,267,783,782	757,571,840	59.71
1851-1858, 8 y.	2,221,323,155	1,437,482,962	64.72

In order to illustrate more fully the important changes in the Foreign Trade of New York, compared with that of the whole Union, we annex the results for each year from 1821 to 1858. These details form a part of the chapter on New York Commerce, in the annual report of the Chamber :

Years.	Imports of the U. S.	Imports of N. Y.
1821	\$62,585,724	\$23,629,246
1822	88,241,541	35,445,628
1823	77,579,267	29,421,349
1824	80,549,007	36,118,723
1825	96,340,075	49,639,174
1826	84,974,477	38,115,630
1827	79,484,068	38,719,644
1828	88,509,824	41,927,792
1829	74,492,524	34,743,307
1830	70,876,920	35,624,070
Total	\$798,633,427	\$363,379,563



repairs of engines, cars, road and bridges, caused by the disaster at Randall's bridge in December last. Deducting this amount, from the expenses, will leave the cost of working and keeping up the road \$78,480 50, which is a decrease of \$5,324 66 as compared with the previous year.

The expenses of keeping up the road will be much greater this than the past year, as it will be necessary to lay one and a-half miles of new rail, to complete the repairs at Randall's and Cox's Creeks; also the connection of the Montgomery and West Point Railroad at Columbus, the cost of which is to be borne equally by the two companies. The benefits to be derived from this connection, it is believed, will reimburse the company in two years by an increase of business and the saving in drayage and omnibus fare.

#### GENERAL STATEMENT.

Capital stock.....	\$561,200 00
Preferred ".....	48,250 00
Guaran'd ".....	60,000 00
Old scrip not returned.....	500 00
Bonds issued at 7 per cent.....	249,000 00
Dividends unpaid.....	4,022 75
Surplus profits.....	108,895 04
	\$1,026,868 69
Construction.....	\$774,244 15
Equipment.....	162,534 23
Stocks and bonds.....	20,800 00
Negro property.....	428 00
Bills receivable.....	4,394 60
Cash and cash assets.....	64,467 71
	\$1,026,868 69

The officers are:

J. L. MUSTIAN, President and Superintendent.  
J. M. BIVINS, Treasurer.

#### Williamsport and Elmira Railroad.

This road is in trouble, and the managers propose the following plan for its relief:

To ask the 1st mortgage bondholders to fund four coupons for two years, say including January 1, 1861—and that they should receive for the same, six per cent, bonds of the company, secured as follows, on which interest should be paid semi-annually as due, commencing with January 1, 1860—so far as due. This, with the scrip already received for 1858 coupons, would amount to two hundred thousand dollars, and in the new mortgage to be drawn would be first secured ..... \$200,000

That the chattel bondholders receive in six per cent, bonds secured, under above mortgage, on the real estate, and under a 1st mortgage on the chattels, as at present, seventy per cent, of their bonds, now five hundred thousand dollars, bearing interest from April, 1861—interest, and balance of principal, in a preferred stock..... 350,000

That the seconds, now seven hundred thousand dollars, should take six per cent, bonds for fifty per cent, to be issued under above mortgage, bearing interest and balance of principal in a preferred stock..... 350,000

That the net income of the road, for two years, be applied to the extinguishment of the floating indebtedness of the company, which, with the collaterals released, and the remaining one hundred thousand dollars of the million bonds now proposed to be issued, would, it is estimated, entirely discharge this floating debt; any deficiency, however, to be liquidated proportionately in a preferred stock..... 100,000

Total ..... \$1,000,000  
This would make, in addition to the present 1st

mortgage, a 2d mortgage of one million dollars, bearing interest at 6 per cent, and, we believe, the road will earn, two years hence, \$180,000 a year, or the interest on both mortgages.

The liabilities of the Co. will then consist of—First mortgage, as at present..... \$1,000,000  
Second mortgage, as proposed ..... 1,000,000  
Preferred stock, estimated ..... 850,000  
Common stock, now \$1,500,000, to be reduced one-third..... 1,000,000

Total ..... \$3,850,000

It will thus be seen that the total capital of the road, fully equipped, would be less than \$50,000 per mile; of which, about \$25,000 per mile would be represented in mortgage debt, and the remainder in stock.

So soon as the reviving business of the country should enable the road to pay more than the interest on its indebtedness, the preferred stockholders would realize it. And the value of the common stock of the company would, as reconstructed under the above arrangement, undoubtedly be greater than it can possibly be while encumbered with so great a load of floating debt as has always rested over it.

This plan, which has been prepared after great deliberation, and on consultation with a number of the parties largely interested, appears to the managers the only course which can save the company from the disastrous results of litigation and ultimate foreclosure.

#### Machinery Department of the Sandusky, Dayton and Cincinnati Railroad.

The following is a recapitulation of the operations of the machinery department of the Sandusky, Dayton and Cincinnati Railroad for the year ending June 30, 1859:

##### LOCOMOTIVE ENGINES.

Miles run by all the trains,..... 532,130  
Cost of repairs, labor and mat'l ..... 34,411  
" " " pr. m. run ..... 6.46  
" oil and waste used ..... 4,416  
" " " " per mile run ..... .82

Total cost of repairs, oil and waste... 38,821  
" " " " pr. m. run ..... .725

There was during the year rebuilt, eight, and one new engine, except the frame, partly built at a cost of \$16,204 69. This was an extraordinary expense, which is included in the repairs of engines, but should be deducted to compare the cost with previous year, 1858, as nothing but the actual repairs is included in that year. The cost per mile run for repairs for the year ending June 30th, 1858, was .56 cents per mile. With this extraordinary expense for the year ending June 30th, 1859, the running expense was .64 cents per mile, or an increase of .08 per mile over 1858. Deducting this extraordinary expense, shows the actual cost for repairs to be .32 per mile, or a decrease of .22 per mile run.

In the charge for repairs is embraced the oil and waste used in the shop, and in the repairs of machinery, tools, etc., etc.

##### REPAIRS OF CARS, BUILDINGS, TOOLS, ETC., ETC.

Cost of repairs of Freight cars..... \$23,380  
" " Passenger cars ..... 6,010  
" " Buildings ..... 2,263  
" " Stationary engines ..... 1,544  
" " Tools, etc. ..... 4,389  
" " Railroad iron ..... 4,337  
" " Locomotive engines and oil & waste, as stated above ..... 38,821

Total cost of maintaining department of machinery..... \$80,544  
Do. for 1858 ..... 93,810

Decrease ..... \$13,286

#### EXTRAORDINARY PERFORMANCES.

Engine Berwick, J. Window, Engineer, run, on freight trains, 19,628 miles, costing for repairs .16 per mile run.

Engine Warren, E. M. Frederick, Engineer, run, on freight trains, 18,690 miles, costing for repairs .18 per mile run.

Engine Belmont, A. Bovee, Engineer, run, on freight trains, 16,055 miles, costing for repairs .15 per mile run.

Engine St. Lawrence, J. Lansdown, Engineer, run, on passenger trains, 19,906 miles, using 460 pints of oil, or one pint to .50.89 miles.

Engine Mississippi, C. E. Clark, Engineer, run on passenger trains, 19,906 miles, using 460 pints of oil, or one pint to .48.27 miles.

Engine Niagara, H. Brooks, Engineer, run, on passenger trains, 20,326 miles, using 496 pints of oil, or one pint to .40.97 miles.

The average number of miles run to the pint of oil was .20.26.

The total force employed in repairs was 132 hands; and including enginemen and firemen, 186.

The Superintendent of the road is John W. Hudson—Master Machinist, Charles H. Sult.

#### Locomotive Department of the Illinois Central Railroad.

The cost of maintaining and operating the locomotive department of the Illinois Central railroad for the month of July was as follows:

Miles run by passenger trains .....	79,562
Do. freight do. ....	51,563
Do. construction do. ....	27,203
Do. wood do. ....	2,958
Do. switching do. ....	17,697

Total miles..... 178,983

Pounds of waste used .....	2,297
Gallons of oil do. ....	1,451
Cords of wood do. ....	3,130
Tons of coal do. ....	651
Wages of enginemen and firemen.....	\$7,126
Repairs of engines .....	8,918
Value of oil and waste.....	1,384
Do. wood and coal .....	14,660
Cleaning engines.....	1,143

Total cost..... \$33,281

Cost of oil and waste per mile run .....	.77
Do. wood and coal do. ....	8.19
Wages of enginemen and firemen.....	3.98
Cost of repairs .....	4.98
Cleaning engines .....	63

Total cost per mile run..... 18.55

Average number of cars per train.....	8
Do. miles to pint of oil. ....	15.42
Do. do. cord of wood. ....	47.86
Do. do. ton of coal .....	44.73

The value of wood on tender is rated at \$4.31 per cord; of coal \$1.80 per ton.

Re-building, superintending, teaming and other expenditures appertaining to repairs are included in the above aggregates.

The cost of the different items for July compared with the six months ending June 30, is as follows:

	For July.	For the half-year.
Cost of oil and waste.....	.77	.81
Do. wood and coal .....	8.19	8.93
Wages of enginemen and firemen	3.98	3.88
Cost of repairs .....	4.98	5.57
Clearing engines .....	.63	.66
Total .....	18.55	19.86

Total .....

**Locomotive Department on the Louisville and Lexington Railroad.**

The cost of maintaining the locomotive department in this road the past year was as follows:—

	Cost per	Cost, mile run.
Fuel	\$18,617	7.94
Stores	2,023	.86
Repairs	18,517	7.94
Oil and waste	4,456	1.90
	<b>\$43,613</b>	<b>18.64</b>

Adding 5 cents per mile for enginemen and firemen, the total expense of this department for the year would be 23.64 per mile run. The total number of miles run was 234,323.

**Journal of Railroad Law.****Rights of Persons Employed by Railroad Companies—Actions for Damages.**

It is now a well-established rule of law, and one of considerable practical importance in the management of railroads, that one servant or agent of the company cannot maintain an action against the company for an accident happening through the negligence of a fellow servant. If the switch-tender mismanages his switch, and the consequence is a collision of trains, whereby the engineer, conductor and passengers are injured, the passengers may sue the company for damages; but the conductor and engineer cannot. The reason is, that in accepting employment on the road, the latter are understood in law to take the risk of accidents resulting from the negligence of their fellow-servants.

This principle receives a striking illustration in the case of *Boldt agt. The New York Central Railroad Company*, recently decided in the New York Court of Appeals. The plaintiff sued for damages for injuries received through the alleged negligence of the defendants servants in running a locomotive upon him.

Upon the trial, it appeared that the defendant was engaged in the construction of a new track parallel to, and about six feet distant from its old track, which was then in use. At the time of the accident, the new track had not been completed, and no trains had run upon it, except some conveying gravel for ballasting. The plaintiff was a laborer who had been employed about a month, under the direction of an agent of the defendant, in graveling and leveling the new track, being hired for this purpose only. He was walking, early in the morning, from his residence along the new track to the place where he was to work, when he was overtaken and struck down by a train of passenger cars, running upon the new track in consequence of the old track being obstructed by an engine disabled upon it, from an accident on the previous night. The defendant moved for a non-suit, which was refused, and an exception taken.

On appeal from the decision of the Court below, it was decided that the plaintiff could maintain no action. The following are the reasons of the Court sustaining this conclusion:

**JOHNSON, CH., J.**—The general rule that an employer is not responsible to one employee for injury occasioned by another employee, engaged in the same general undertaking, is firmly settled in this State. (*Sherman vs. Rochester and Syracuse Railroad Company*, 17, N. Y., 153; *Russell vs. Hudson River Railroad Company*, *id.* 134, and cases therein cited.) The plaintiff was employed to labor in graveling and ballasting a new track,

which was on the same road-bed with, and about six feet distant from, the old track, and was injured by a train of cars of the defendants running on the new track, on which no train of cars had before been run. The plaintiff who suffered and the persons who caused the injury were in the service of one employer,—the railroad company—the plaintiff in preparing a track and the others in running trains, but both in the common enterprise of maintaining and operating the railroad.

If the plaintiff had been engaged in repairing the old track and the injury had occurred to him while digging gravel for that purpose, on the site of the new track by the cars being thrown from the track and falling upon him, his case could not in principle have been distinguished from that of a switch-tender or other person employed in the company's service about the track, and injured in such service. Nor can I conceive that a different principle would apply in case the same accident occurred while the injured person was employed in preparing a new track on the site of the gravel pit, instead of digging gravel to repair the old track. In each case the liability to injury would be incident to the employment. In accepting service on such a new track, in the case supposed, he must be taken to have known that his employers were engaged in running cars on the old track, and that he was, therefore, to incur such hazard as might be occasioned by the negligence of their employees. So in the case at bar, he must be taken to have contracted with reference to the possibility of cars being run on the new track, whenever it became so nearly finished as to render such running practicable. When the plaintiff was injured, he was walking on the new track from his house to his work, but he was in the defendants' employment and doing that which was essential to enable him to discharge his particular duty, viz: going to the spot where it was to be performed, and he was moreover going on the track where, except as the servant of the company, he had no right to be, he was there as the employee of the company, and because he was such an employee. Upon this point as well as upon the other, *Gillshanon vs. Stoney Brook Railroad Company*, (10, *Cush.*, 228), and the cases before cited, lead to the result that the recovery was not warranted by law.

**Steamboat Arrivals at St. Paul.**

The following table will show the number of arrivals at St. Paul during the last fifteen years, and the increase or decrease of the preceding year:

In 1844 there were	41	arrivals.
In 1845 "	48	" increase 17 pr. ct.
In 1846 "	24	" decr'se 50 "
In 1847 "	47	" increase 96 "
In 1848 "	63	" 34 "
In 1849 "	85	" 35 "
In 1850 "	104	" 25 "
In 1851 "	109	" 14 "
In 1852 "	171	" 44 "
In 1853 "	235	" 32 "
In 1854 "	310	" 32 "
In 1855 "	563	" 49 "
In 1856 "	759	" 35 "
In 1857 "	965	" 27 "
In 1858 "	1,090	" 13 "

—showing an average annual increase during the last fourteen years of 28 per cent.

The number of boats engaged in the trade in 1850 were 7; in 1851, 11; in 1852, 17; in 1853,

23; in 1854, 38; in 1855, 68; in 1856, 79; in 1857, 99; in 1858, 62—showing an average annual increase of 30 per cent.

The following will exhibit the dates of the arrival of the "first boat" through the lake, for the last fifteen years:

1844—Steamer Otter, Capt. Harris....	April 6
1845 " Otter, Capt. Harris....	April 6
1846 " Lynx, Capt. Atchison....	March 31
1847 " Cora, Capt. Throckmorton....	April 7
1848 " Senator, Capt. Harris....	April 7
1849 " High'd Mary, Atchison....	April 9
1850 " Highland Mary, Atchison....	April 19
1851 " Nominee, Capt. Smith....	April 4
1852 " Nominee, Capt. Smith....	April 16
1853 " West Newton, Capt. Harris....	April 11
1854 " Nominee, Capt. Blakely....	April 8
1855 " War Eagle, Capt. Harris....	April 17
1856 " Lady Franklin, Lucas....	April 18
1857 " Galena, Capt. Laughton....	May 1
1858 " Grey Eagle, Capt. Harris....	March 25

And the following shows the time of departure of the "last boat," and the number of days navigation during a series of years:

1849, November 19.....	224 Days of Navigation.
1850, " 18.....	213 "
1851, " 20.....	230 "
1852, " 10.....	208 "
1853, " 22.....	225 "
1854, " 23.....	229 "
1855, " 19.....	216 "
1856, " 10.....	206 "
1857, " 14.....	198 "
1858, " 16.....	236 "

The following table shows the annual aggregate amount of tonnage (Custom House measurement) for each year, and the annual rate of increase since 1850:

1850.....	16,640
1851.....	19,255—increase 15 per cent.
1852.....	27,308— " 41 "
1853.....	39,170— " 43 "
1854.....	51,740— " 32 "
1855.....	87,812— " 69 "
1856.....	124,140— " 41 "
1857.....	194,268— " 59 "
1858.....	231,984— " 18 "

**Town Bonds to the Albany and Susquehanna Railroad.**

The Schoharie *Republican* states that Judge Gould has rendered his decision in the case of the Albany and Susquehanna Railroad Company at certain towns in Schoharie County. Suits were commenced last fall by citizens of the towns of Seward, Richmondville, Cobleskill, and Schoharie, respectively, against the Commissioners of each of the above-named towns, and against the Supervisors of Schoharie County, to restrain the issuing of bonds by said towns, or the raising of moneys by the Board of Supervisors, to pay interest on bonds to be issued by said Commissioners, for the purpose of aiding in the construction of the Albany and Susquehanna Railroad. An injunction was granted by Judge Gould, during the sitting of the last Schoharie Circuit in Schoharie County, which was subsequently dissolved by Judge Gould himself, upon a motion made for that purpose by the railroad company. Among other questions raised by the pleadings in these several suits, it was claimed by the plaintiffs that "the consent of a majority of the taxable property" in the several towns, had not been obtained, and the bonds of the several towns could not, therefore, be issued in aid of the company. The cases were noticed for trial at the Schoharie Circuit, but could not be reached upon the calendar, and they were accordingly referred, by consent of parties, to Judge Gould to hear and decide the same. The cases were argued at Sharon Springs during the latter part of July last, and the *Republican* now learns from a private source that Judge Gould has decided each case in favor of the railroad company.

**Galena and Chicago Railroad.**

The comparative earnings of this road for seven months of the current fiscal year have been as follows:

	1859.	1858.
January	\$68,256	\$85,819
February	66,188	74,180
March	100,203	93,920
April	90,041	141,292
May	119,321	157,953
June	110,656	203,153
July	89,856	157,287
	<hr/> \$639,471	<hr/> \$913,104
		<hr/> 639,471
Loss		\$273,638

The total earnings for 1858 were \$1,547,561. A corresponding reduction for the ensuing five months would reduce the earnings for the year to a little below \$1,100,000. The earnings for 1857 were \$2,416,343. The immense reduction shows the prostration of business in the west.

The net earnings for the past year were \$620,329. The per centage of expenses to gross earnings, 60. The amount paid last year for interest, sinking fund and improvement account was \$874,405; leaving a balance of \$227,924. A dividend of 4 per cent., amounting to \$241,024, was paid during the year.

Assuming the same ratio of expenses the present, as the past year, the net would be about \$450,000, on gross earnings of \$1,100,000, leaving little for dividends. The result will probably be considerably more favorable, as the earnings for the balance of the year will probably exceed these for the past.

**The Effect of Speed upon Weight.**

(From the London Athenaeum, Feb. 26, 1859.)

I have waited to see whether any one would point out the fallacy of Stephenson's statement (*Athen.* No. 1,633, p. 217,) that either iron or ice will bear a weight passing over it at a greater velocity, which it could not bear if it went slower; and that "when it goes quick, the weight in a manner ceases." The very reverse of this is the truth, as was clearly established by the "Iron Commission," which was appointed a few years since, to inquire into the causes of the breaking down of the iron bridge over the Dee. And the principle so established is now universally acted upon throughout our railways; the speed of the trains, upon approaching bridges of any considerable length, whether of iron or wood, is usually slackened to 8, 6, or even 4 miles an hour, according to circumstances; and the same rule, viz., of going slow, and not of going quick, is always observed in passing over an unsound part of an embankment. I was myself present at some very interesting experiments made by this Commission at the iron bridge of the South-eastern Railway, near Epsom, in the presence of Lord Wrottesley, Sir W. Cubitt, the Astronomer Royal, and several others. Prof. Willis had contrived a very ingenious apparatus, which, fixed to the centre of one of the iron girders, measured and registered the deflection of the bridge at the passing over of any weight. An engine with a heavily-laden tender was then passed over the bridge at speeds varying from 10 to 60 miles an hour, and it was found that the greater the speed the greater was the deflection of the girder.

K. A. W.

**Dubuque and Pacific Railroad.**

We were in error in announcing some time since the election of Col. R. B. MASON to the Vice Presidency of this company. On the 2nd ult., he was appointed Superintendent and Engineer of the company; but the election for Vice President has not yet taken place.

**Dubuque and Pacific Railroad.**

We learn that the negotiations that were pending between this company and OLIVER P. Root, Esq., of Oneida, N. Y., for the building of 40 miles of road, have been concluded on terms satisfactory to all parties. Mr. Root agrees to complete the road to Manchester, (47 miles from Dubuque,) by the 1st of October next; to Winthrop (60 miles from Dubuque) by the 1st of November next; to a point 75 miles from Dubuque by the 1st of December next; and to a point 80 miles from Dubuque by the 1st of January next. The contract recognizes Col. R. B. MASON as Chief Engineer, and as referee in case any difference may arise between the parties.

**The Niagara Suspension Bridge.**

As some reports have been circulated regarding the safety of this structure, the Buffalo *Courier* publishes the following statement, the facts of which were furnished by Mr. McKenzie, the Resident Inspector and Master Carpenter of the Bridge:

The bridge was completed and opened to traffic in May, 1856. During that year not a bolt gave way, nor was there a single day spent in any repairs. In 1856 all that was done was tightening up or loosening the stays to suit the temperature. In 1857, for the purpose of giving additional stiffness or strength to the lower floor, and not to remedy any defect, beams were placed under the lower floor, and securely bolted to the upper floor. In 1858, a portion of the inch truss rods for a distance of 350 feet in the centre of the bridge were replaced by inch and a quarter rods. This was done as an additional support to the beams. White oak was also used in some portions of the bridge instead of pine, as the latter was found to be too soft and pliable last year. This year, rubber or spring washers have been introduced in place of the iron ones, and they are found to lend additional elasticity to the structure.

All of these improvements have been made, as we have already said, to render the bridge stiffer, and not to remedy any defect found to exist. We went across in one train, and were on the bridge when four other trains passed. Two passed while we were on the railway track, and one while under the lower floor on the scaffolding. During the passage of these several trains but little more motion was perceptible than during the crossing of an omnibus load of passengers, and it would be difficult to detect the difference except for the rumbling noise of the locomotive. We were one of a party of a dozen or so, who went across the Suspension Bridge in the first passenger car that ever crossed over. This was in 1855, and we did not perceive any more motion on Saturday, if as much, as we did at that time. We saw several trains cross and re-cross, and we did not notice that a single passenger left the cars to walk across, and the railroad conductors say that only occasionally a passenger gets out and walks, and then solely for the purpose of getting a better view of the great structure.

It is the duty of the resident inspector to examine every portion of the bridge carefully every week, and report its condition to the Superintendent. We believe the bridge to be safe and secure, and have perfect confidence in its durability.

From thirty to forty five trains a day pass over the bridge, and have passed during the past four years, and we are assured by the Inspector that the bridge sags no more now than it did during the first six months of its use; and he asserts that it is stiffer and safer now than during any period since its completion.

The story, started by the New York *Herald*, of the sagging of this structure, has called forth from Mr. J. R. Roebling, the builder, who is now a resident of Pittsburgh, a flat denial, attributing it to the malice of some individual. He says:

"Being constantly kept informed, as the engi-

neer of this work, by the superintendent who has it in charge, I can inform you that the correspondent's statement is a gross misrepresentation, made either from ignorance or wilfulness, or perhaps both. I will only add that, in consequence of the contraction and expansion of the cables, the Niagara bridge rises and falls inversely with the temperature amounting to two feet for a hundred degrees. Hence the cry every summer that the bridge is giving way rapidly. This work has undergone no change since its completion, and is well taken care of, and of all the railroad bridges on this continent, it will be the last to fall."

**English Emigration Returns.**

A compact pocket blue book, of 240 pages, published on Friday, contains the 19th General Report of the Emigration Commissioners (1859). The report, comparing the emigration of 1856, 1857, and 1858, attempts to account for the striking decline noticeable in the number of persons emigrating from the shores of Albion, for last year it fell to 113,972 from 212,875 in 1857 (this latter figure, too, exhibiting a great difference as compared with preceding years). The commercial crisis of 1857, and the distress in the Australian colonies, are said to have been causes greatly instrumental of late in deterring persons from leaving home to try their chance across the Atlantic, or at the distant antipodes. There was also a great demand for men in England. But a more satisfactory and permanent cause of decrease is to be found, says the report, in the altered condition of Ireland. In 1851 not less than three-fourths of the whole number who left the kingdom were Irish.

Since that period the proportion has gradually declined, until, in 1857, it was only 40½ per cent. or two-fifths of the emigration, while in 1858 it fell to 38 per cent. The consequent cause here at work is to be found in the increased prosperity of the working classes in Ireland, and the constant absence of any inducement to emigrate. That it arises from no want of means to pay for passages is evident from the remittance of £472,610 for the purpose of facilitating the emigration of friends and relations during the year 1858. The mortality on board emigrant ships to North America is declining year by year; from 1854 to 1858 it fell from 74 to 19 per cent. Of the 113,972 emigrants last year, 9,704 went to British North America, 59,716 to the United States, and 39,295 to Australia; 60,309 Germans emigrated from Germany to all parts of the world in the same period—a great falling off as compared with previous years. The cause of this decline cannot be assigned with certainty at present. 17,207 emigrants to Australia last year paid their own passages, and 15,910 were assisted. 18,841 emigrants returned last year from America, and 4,863 from Australia and New Zealand.

Dr. Normandy's apparatus for distilling fresh from sea water, has been tried and found to be so satisfactory that it will be used henceforth on board all passenger ships, by express and positive order of the Privy Council. Of 4,442 adult males who emigrated to Canada, 1,651 were farmers, 1,593 laborers, and 932 mechanics.

In conclusion the Commissioners advert to the emigration of the first three months of the present year (1859) as compared with the similar period of former years. The emigration of the first three months of the eight years from 1847 to 1854 inclusive, averaged 50,604 a year, and of the twelve years from 1847 to 1858 inclusive, 43,122. In the first three months of the present year it amounted to only 17,314. The extent to which it is effected by the demands for the military and naval services seems very evident. In 1854, before the commencement of the Russian war, it was 48,565; and in 1855, 36,677; in 1856, 21,859; in 1857, in the interval between the Russian war and the Indian mutiny, 35,007; in 1858, 19,146; and in 1859, 17,314. Of the emigrants during the first three months of the year there went to the United States 10,005; British North America 59; Australia, 6,167; and to other places, 1,088; making a grand total of 17,314.—*London Times*, Aug. 4th.

**Passage of a Steamer from St. Louis to Fort Benton.**

One of the most remarkable feats of steamboat navigation ever performed, has just been completed by the steamboat *Chippewa*, which, loading at St. Louis with Indian supplies, made a consecutive trip from that city to Fort Benton, a distance of 4,000 miles. The enterprise was set on foot by Charles P. Chouteau, who finally during the trip purchased the boat of her owners, having from the start insured her. She was at Fort Union when purchased, and at that point Capt. Crapster, who started with her, relinquished, and Capt. John B. LaBarge assumed command. A very interesting account of the voyage in the *St. Louis Democrat* states that on the 3d of July she left Fort Union with 130 tons of freight, 10 or 12 passengers, and a crew of 40 or 50 men. Every arrangement had been made which tended toward success, and the determination was expressed to put her through, even if it had to be done over dry bars. At only one point was the channel found so shallow as to be a serious impediment, and there the men hurried into it, dug it out with shovels, and the boat pushed on. The channel between the rocks on the rapids was found to be so narrow that there was great danger, should the boat sheer off in the least, of her being dashed to pieces. To avoid this, the anchor was placed ahead, and the boat pulled over by the capstan. On the 17th of July, the *Chippewa* reached Fort Benton, and the navigation of the Missouri river for near 4,000 miles was proved not only to be feasible, but with able commanders, of easy accomplishment. Heretofore the trip in Mackinaw boats occupied ninety days. The *Chippewa* accomplished it in fourteen days. On the 18th of July her head was turned homeward, and on Wednesday last she reached St. Louis, having been absent a period of eighty-four days.—*Det. Trib.*, Aug. 23.

**History of City Passenger Railroads.**

In 1825, the first passenger railroad in the world was opened between Stockton and Darlington, in England, a distance of thirty-seven miles. The cars were drawn each by a single horse. From such a beginning, what do we see now? We will not at present enter into a discussion of what we consider ordinary railroads, but will confine our attention to tracing the antecedents of city passenger railways. In 1832, the Germantown Railroad was opened, and for a time horses were the motive power. In the same year—indeed, within a few days—a part of the Columbia Railroad was put in use with horse-cars also. A few months before that time, a supplement to the charter of the Northern Liberties and Penn Township Railroad Company was passed, extending the time required for the completion of the road (which had been chartered in 1829) to July 4, 1836. Long previous to this, however, the road, now the Willow street Railroad, was opened, and a line of horse cars established between Third and Willow and Columbia bridge, by a Corsican named Luiciani. The first car was called the Paul Amelia. This was, we believe, the first city passenger railroad in the world. It differed from the Germantown and other roads on which cars were run by horse power, in the fact that its cars stopped as our city cars now do, to take up and set down passengers at any point on the line, while the others had regular stations for stopping. Such cars were afterwards run on Branson and Prime streets to Gray's Ferry, as also on Market and Broad streets. But they ceased running some years since. Had these objections, however, been removed, it must be remembered that the demands of traveling citizens were not great. The first omnibus in Philadelphia was started in 1832. In New York, horse railroad cars have run for twenty years or more on the Harlem Railroad, and for a long time without prompting imitation. Dickens, in his American Notes, alludes to two stout horses trotting along "drawing a score or two of people, and a great wooden ark, with ease."

From the year 1852, efforts have been made time and again in Philadelphia to procure from the proper authorities a charter for a passenger

railroad, but for a long time these efforts were ineffectual. All sorts of objections were made. But in November, 1855, a joint special committee of Councils, appointed to look into the matter, reported that "they were decidedly of the opinion that city passenger railroads might, by proper construction, arrangement, and use, be made exceedingly convenient and beneficial to the citizens, and that the experience of New York and Brooklyn so sufficiently attested their utility as to preclude the necessity of argument."

The Philadelphia and Delaware River Railroad Company was chartered April 4th, 1854, to build a road from a point north of Cherry street, Kensington, one square south of Berks street, to Easton. But in two years, this plan being given up, it was determined to extend the road, adapted for horse cars, to Frankford only. By an act, approved by the Governor June 9th, 1857, the company were authorized to extend their road to Southwark, over Fifth and Sixth streets, subject to the approval of Councils. After permission was given to build the road, every impediment possible was thrown in the way, and the commercial crisis intervening at that time, the cars were not run on Fifth and Sixth streets, until January 20th, 1858. The whole cost of the road was about \$650,000—hard times and want of experience in the matter combining with other peculiar disadvantages to increase the expense. There are now in use by this company, on seventeen miles of single track, forty-two cars, with a complement of seven horses per car, running each day 3,542 miles on the average, and they carried, during the year past, nearly 4,000,000 passengers.—*Phila. Press.*

**Marietta and Cincinnati Railroad.**

The management of this road is, by recent changes, again in the control of the same influence that had possession at the time it was opened, in June, 1857. Whatever may be the extent of the embarrassments now surrounding this property, it is the great road of Southern Ohio, and will surely take its place among the most influential lines in all the West. The anti-railway mania of the two years last past has been as violent and unreasonable as was the over confidence in these works previous to that time. On this regurgitating wave, the Marietta and Cincinnati is coming up again in public favor and public confidence. As a condition precedent, of course, fictitious values must be wiped out and real values alone be recognized. When or how the real proprietary will come into possession does not yet appear, but that they will, sooner or later, there can be no doubt.

The Union Railroad, connecting the Marietta and Cincinnati at Scott's Landing with the Baltimore and Ohio at Parkersburg, is progressing to an early completion. The track will be down in a few days to a point three miles above Parkersburg. This will take the cars below all obstructions from low water.

The improvement in the road-bed, machinery, and general police of the Marietta and Cincinnati has been very marked within the last year. We are prepared, from personal observation, to say that it compares, in the matter of police and regularity of movement, with the best in the country.—*Cin. Commercial.*

**Detroit and Milwaukee Railroad.**

On Monday next, the two new sea-going steamers, Detroit and Milwaukee, now nearly finished at Buffalo, will leave for the upper lake. We observed that the work on the harbor at Grand Haven is being pushed with all possible despatch. Several hundred feet of piles have already been closely driven for a solid substantial pier. The expense of this improvement, (which should be done by the Government,) is all defrayed by the railroad company, and will insure a depth of water at the entrance of the harbor sufficient for all ordinary lake craft, and will prevent the formation of sand bars at the mouth of the river. As long as the affairs of this road are as ably managed as at present, there is not the least danger of any other route competing with it for the Eastern travel from the North-west.—*Milwaukee Wisconsin*, Aug. 20.

**Cincinnati Stock Sales.**

BY KIRK & CHEEVER.

For the week ending August 30, 1859.

	BONDS.	Per cent.
Little Miami, 1st Mort.	6s	52 1/2 and int.
Covington and Lexington, 2d Mortgage.	7s	55
Cinc. Ham. and Dayton, 2d Mortgage	7s	56
Indianap. & Cincinnati, do.	7s	52 1/2

**STOCKS.**

Cincinnati, Hamilton & Dayton	67
Columbus and Xenia	82
Indianapolis & Cincinnati	150
Little Miami	98

**Railroad Earnings.**

The earnings of the Terre Haute, Alton and St. Louis road for June and July, 1859, as compared with same time in 1858, were:

1859.	1858.
June	\$52,152 22
July	47,231 16

Total	\$99,383 38
Increase in 1859 of	\$14,342 50

The following are the earnings of the Grand Trunk Railway of Canada for the week ending August 6th:

Passengers	\$21,244 13
Freight	15,540 15
Parcels, mails and sundries	2,849 46

Total	\$39,133 74
Corresponding week last year	36,774 27

Increase	\$2,359 46
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The receipts of the Grand Trunk Railway of Canada for the week ending August 13, were:

Week ending Aug. 14, 1858	\$38,874 41
Same period last year	31,721 39

Increase	\$1,153 01
Total traffic from July 1st	\$250,397 68

Same period last year	239,098 25
Increase	\$11,299 43

The traffic of the Great Western Railway of Canada for the week ending August 19, 1859, was as follows:

Passengers	\$25,316 68
Freight and live stock	8,211 81
Mails and sundries	1,401 48

Total	\$34,929 92
Corresponding week of last year	35,379 35

Decrease	\$441 43
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The following is a comparative statement of the earnings of the Northern Central Railway Company for the month of July.

From	1859.	1858.	Increase.
Merchandise	\$24,938 20	\$21,805 02	\$3,683 18
Coal	16,898 87	13,680 85	3,218 52
Passengers	24,831 45	21,652 08	3,179 42
Mails	2,425 00	1,487 50	937 50
Sundries	78 95	78 95	78 95

Totals	\$69,172 47	\$58,124 90	\$11,047 57
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The earnings of the Cincinnati, Wilmington and Zanesville railroad in June were \$13,007 64

The operating expenses, repairing, improving, etc. .... 12,287 90

Decrease ..... \$619 74

The receipts during June from all sources were \$13,841 14; and the disbursements, \$14,149 86.

In July the earnings were ..... \$12,247 08

And the expenses ..... 11,168 96

Decrease ..... \$1,078 12

The receipts from all sources during July were \$10,640 49.

A statement of the receipts of the Virginia and

Tennessee railroad, for the month of July, 1859, compared with the receipts of July, 1858:—	
July, 1859, freights.....	\$19,475 08
Passenger fare, mails, etc.....	39,581 80
	\$56,057 88
Received for same services, July, 1858, 43,037 11	
Increase.....	\$13,019 77
—Being an increase of 32 per cent.	

## American Railroad Journal.

Saturday, September 3, 1859.

### Michigan Southern Railroad—Dissolving View--of Dividends.

It will be interesting to take a brief review of the operations of this road, which has experienced all the extremes of inflation and collapse that have so strongly characterized some Western railroads.

It was opened from Lake Erie to Chicago, in July, 1852. In a year from that time, it was in full flower. The liabilities of the company to its stockholders and creditors, (which represented very nearly the cost of the road,) its earnings, and the dividends paid since that time, have been as follows:

Years.	Liabilities.	Earnings.	Dividends.
1853.....	\$7,444,960	\$1,573,181	12 per cent.
1854.....	10,198,914	2,158,811	22 " "
1855.....	18,160,338	2,595,631	10 " "
1856.....	17,681,968	2,714,848	10 " "
1857.....	19,836,089	2,233,745	5 " "
1858.....	19,595,407	2,015,749	

The net earnings for 1857 were represented to have been \$544,311; and for 1858, \$777,272; making for the two years, \$1,321,583. We presume the interest account, for the two years, exceeded this amount by something like \$200,000. The earnings for the present year will probably fall as low as \$1,650,000, and net earnings to \$350,000 or \$400,000.

This is a short and somewhat eventful history, but a sad one. In 1853, the company had constructed the only portion of its line capable of affording a remunerative traffic—the Main Trunk, extending from Lake Erie to Lake Michigan. Had it been content to stop here, the road would have been good property. Seven millions of dollars for 250 miles of road would not have been an excessive sum. Since that time, the capital account has been increased in one way or another, \$12,150,044, without adding a penny, probably, to the net earnings of the company.

What have been the actual earnings of the road, we have no means of telling, as the reports for 1855 and 1856 did not give the current expenditures. It will be seen that for 1853, '4, and '5, the company earned just about 20 per cent. gross, upon the nominal cost of the road. A rate of earnings equalling this per centage seems necessary to enable a Western company to pay regular dividends. Last year the earnings fell to about 10 per cent. on the cost of the road; and the present, they will be about 8 per cent.

To preserve a harmony throughout, the road has been handed over to a set of old fogies, who, with feeble steps, attend it in its downward course. The present year, a portion of the interest and sinking fund will have to be borrowed, if paid at all. The preferred stockholders have not the remotest prospect for a dividend. As matters are going, the only virtue in the old shares is the pleasant memories they carry with them.

### What does it Cost to Maintain the Track of a Railroad?

Mr. FELTON, President of the Philadelphia, Wilmington and Baltimore railroad, estimates the cost of maintaining the track of this road, (the same being in good condition on the outset) at \$614 50 per mile annually. It is about 100 miles long, and is laid with a rail weighing 50 lbs. to the yard, which he considers as more economical than one weighing 60 or 65. Of this weight, 8,000 tons would be sufficient for the whole road. Supposing the rail to last 10 years, the annual renewals would equal 800 tons, costing the company, in exchange for the old rail, \$20 per ton. The ties are supposed to last seven years, and the number annually required is 35,000, costing \$9,625 annually. The fastenings, chairs, spikes, etc., etc., cost \$600 per mile, or \$6,000. The cost of laying the rails is put down at \$400 per mile, or \$4,000. The cost of labor of adjusting the track is estimated at \$250 per mile. The following statement will present this matter in a more distinct light.

800 tons of rails costing.....	\$16,000
35,000 ties ".....	9,625
Chairs, spikes, etc. ".....	6,000
Laying track.....	4,000
Adjusting track.....	25,000
	\$60,625

—equal to \$606 per mile of road, or about 14.40 cents per mile run.

To show that this estimate is not far out of the way, we take the results of the operations of two leading Massachusetts roads for 10 years past—the Boston and Worcester, and Boston and Providence. These have been in operation for nearly 25 years, and for ten years past neither one has materially increased its construction account or liabilities. In this period, the rails must have been almost entirely replaced. As the roads have been well maintained, the sum expended for this purpose may be taken as standard to show at what sum the track of a railroad may be maintained. It is very probable that it may have been, on the roads named, for sums considerably less than those actually expended.

### Statement showing the cost of maintaining the track of the Boston and Worcester Railroad, for a period of ten years.

Years.	Length of r'd.	Cost of road.	Cost of rep's of track.	Cost of iron used.	Cost of rep's of bridges.	Miles run.
1849.....	114	\$1,908,332	\$26,136	\$8,955	244,850	251,950
1850.....	114	4,882,648	948	2,360	252,927	285,920
1851.....	114	4,862,748	2,360	2,453	305,784	330,590
1852.....	114	4,845,966	2,360	2,453	316,238	330,590
1853.....	114	4,830,754	2,360	2,453	295,703	316,238
1854.....	114	4,856,370	2,360	2,453	296,374	316,238
1855.....	114	4,865,439	2,360	2,453	292,649	316,238
1856.....	114	4,855,418	2,360	2,453	292,649	316,238
1857.....	114	4,843,779	2,360	2,453	292,649	316,238
1858.....	114	4,839,090	2,360	2,453	292,649	316,238
		\$508,412	\$348,097	\$8,955	244,850	251,950
		348,097	75,469	2,360	252,927	285,920
		75,469				
		\$508,412	\$348,097	\$8,955	244,850	251,950
		348,097	75,469	2,360	252,927	285,920
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		348,097	75,469	2,360	252,927	285,920
		75,469				
		\$508,412	\$348,097	\$8,955	244,850	251,950
		348,097	75			

We invite attention to the advertisement, in another column, of *Lucius Hart, Esq.* The metals mentioned in the advertisement are imported by Mr. H., and furnished by him to Railroad Companies and Machinists at the lowest rates. Babbit, or anti-friction metal is largely used by them. Mr. H. supplies either the manufactured article, or the raw material from which it is made, viz: tin, antimony, copper, etc. Address *Lucius Hart, Esq.*, Nos. 4 and 6 Burling Slip, N. Y.

#### Iron Cars.

An iron passenger car has recently been constructed at Paterson, N.J., according to *LaMothe's Patent*, for the Boston and Worcester railroad. It does not differ materially in size or appearance from the wood car of a similar class. Without the platforms, it is 46 feet long and has 30 seats. It is a little wider than the ordinary narrow gauge cars.

It is not, however, in the difference of shape or finish that this car is distinguished from others, but in the material of which it is constructed—iron.

The bottom or platform of the car "is composed of a series of longitudinal bands of iron, placed edgewise, from which others cross from side to side. The sides are also formed of longitudinal and upright bands crossing each other and strongly riveted together, the whole terminating in a spine which runs lengthwise along the roof. After the panels have been put in, it will be seen that the whole is nothing more or less than a tubular bridge of enormous strength, yet much lighter than the ordinary wooden car. The number of rivets used exceeds 9,200, and the number of feet of band iron 6,200. The latter is two inches wide by one-seventh in thickness, except under the floor and platform, where it is from four to six inches wide." This, we are aware, is a very inadequate description, but it is difficult to give one without the exhibition of a cut or model. Suffice to say that the car, so far as provision is made for strength, is composed entirely of iron disposed in a manner to get the greatest amount of strength, with the least weight; and as every plate or band used has a distinct duty to perform, it will be readily understood that the car may be as much lighter and much stronger than the wooden car, as iron is stronger than wood in proportion to its weight.

Another advantage claimed is its *durability*, the small amount of wood used, being simply for the purpose of ornament, or upholstering. Nothing but iron is exposed to the action of the weather. Well painted, it may last for an indefinite period. Exposure to the weather will have no effect upon it, either to cause it to decay, or to weaken it by the shrinkage of its parts, as in the case of wooden cars. For hot climates in particular, the iron car must prove of great advantage over the wooden one.

In cases of collisions or of accident it would, probably prove much safer than the wooden car. It might be bent up, and twisted out of shape, but it could not be broken.

We presume it can be furnished as cheaply as the wooden car. If so, there must on every account be great economy in its use. It will weigh two or three tons *less*, than the other. Here is

another considerable advantage. In style of finish, the one described will compare favorable with the best styles to be found on any of our roads. In fact, it may be taken as a model of graceful design, and of exquisite workmanship, which, with its intrinsic merits cannot fail to commend it to the railway public. It was built by Mr. Cundell, of Paterson, and painted by Mr. David Milne. The chief proprietor and agent is *E. W. Sargent, Esq.*, No. 15 Broadway, New York, from whom further information may be obtained.

#### Interest and Dividends.

The trustees of the first mortgage bonds of the Vermont Valley railroad (Bellows Falls and Brattleboro'), have declared a dividend of 50 per cent. on the interest coupons of October, 1856, payable on the 29th.

The Florida *Sentinel* says that the funds for the payment of interest due Sept. 1, on the Florida and Atlantic and Gulf Central railroad, has been deposited in the State Bank at Tallahassee.

The following described Detroit City Bonds will be redeemed at the Metropolitan Bank, in the City of New York, September 1, 1859:

Bonds issued September 1, 1839, and numbered 1 to 86, inclusive, each \$500 ..... \$43,000  
Bonds issued April 1, 1841, and numbered from 87 to 100 and from 1 to 20, inclusive, each \$500 ..... 17,000

Total ..... \$60,000

The Richmond and Danville Railroad Company has declared a dividend of four per cent. on its capital stock, payable on the first day of December next.

#### New York and Erie Railroad.

Mr. Moran has resigned the Presidency of this road, and also, we believe, his place as Director.

#### Hudson River Railroad.

We give on the following page a statement showing the operations of this road for five years ending September 30, 1858.

The result, so far, has been more advantageous to the public than to the owners of the road; the former have been favored with an admirable road, running at high speeds, and carrying passengers, with great safety, at the rate of two cents per mile.

The net earnings for the five years have hardly equalled the accruing interest on the company's indebtedness. The amount paid on account of the latter has been \$3,087,986, exceeding by \$53,467, the total net earnings.

The gross earnings have equalled very nearly 15 per cent. on the cost of the road, and about 17½ per cent. on the indebtedness of the company. The current expenses have equalled 66.41 per cent. of the earnings. The cost per mile for trains run has been 143.71 cents.

Compared with other roads, the cost of operating this has been excessive. This has been owing, in part, to the very large items for contingencies which for the years embraced have amounted to the following sums—

1854	.....	\$269,813
1855	.....	281,657
1856	.....	284,836
1857	.....	250,468
1858	.....	218,088

The "contingencies," for 1855 and 1856, were made up of the following items—

1855.		
Paid	Harlem railroad	\$72,827
"	Troy and Greenbush railroad	51,846
"	Troy Union	44,257
"	hauling cars	40,828
"	rents	20,499
"	printing, etc.	6,892
"	ferry boats	18,028
"	sundries	26,479
		\$281,657

#### 1856.

Paid	Harlem railroad	\$64,467
"	Troy and Greenbush railroad	77,078
"	Troy Union railroad	35,181
"	hauling cars by horses	42,168
"	rents	29,771
"	printing, etc.	6,911
"	ferry at Albany	13,474
"	sundries	15,368
		\$284,518

Since 1856, the items that make up contingencies have not been given. The Troy and Greenbush railroad is leased by the Hudson river. The latter pays 7 per cent. on \$275,000, equalling \$19,250. The amount charged as paid to that road is made up of this sum, and current expenses for operating it. The receipts are included in those of the Hudson river road.

The amount paid the Harlem road is the balance due it under a contract in reference to the *through* business of the two roads. The agreements under which these sums were paid, have been discontinued.

The cost of maintenance of track has been moderate, equalling only 19.94 cents per mile run, which is so low for the high speeds at which the trains have been run, that we presume the rails and ties have not been fully maintained, and that, consequently, the amount expended upon track, will continue to increase for some years to come.

On the other hand, the cost of fuel and repairs of engines has been excessive, and will probably be largely reduced. By the use of coal, the expense for fuel may be reduced \$100,000 annually, at least. The cost of repairs of engines is 33 per cent. higher than it need be, and that per centage higher than it is on the average of roads having an equal traffic. The cost of oil and waste is twice too high, judged by similar standards.

Thus far the road has shown itself to be hardly worth the debt resting upon it. The accruing interest has not been met by some \$10,000 annually. No surplus fund, consequently, has been accumulated—nothing whereby to meet the contingencies of an accident, or for renewing the superstructure. We have no reason to look to a very rapid increase of receipts. It is somewhat remarkable that those for 1854 and 1855 are very nearly the same.

It may be said in favor of the road that both it and the rolling stock is maintained in admirable condition, and that the road is managed with a great deal of energy, and safety, so far as travelers are concerned. It is of the greatest value to the city of New York, and to the whole line of railroad extending from Albany to the Mississippi River. It deserved much better success than it has so far achieved; yet we presume it has paid fully 7 per cent. net upon its actual cost. The money lost in one way or another, together with the scrip issued by way of interest on the stock till the road was opened, have probably been quite equal to the amount of stock outstanding.



**Western and Atlantic Railroad.**

The gross earnings of this road for the year ending September 30, 1854, were \$591,154.78 Working expenses, (43 per cent.) 253,031.78

Net earnings ..... \$338,123.00  
Gross earnings to Sept. 30, 1855 ..... \$688,930.56  
Working expenses, (37 1/4 per cent.) 259,883.33

Net earnings ..... \$429,047.23  
Gross earnings to Sept. 30, 1856 ..... \$871,366.53  
Working expenses, (43 1/2 per cent.) 380,668.85

Net earnings ..... \$490,697.63  
Gross earnings to Sept. 30, 1857 ..... \$900,808.95  
Working expenses, (88 1/2 per cent.) 435,827.55

Net earnings ..... \$461,981.40

The total of the net earnings for the four years, was, according to official reports, \$1,722,849.31. The yearly average of the net earnings was \$430,712.82, and the monthly average \$35,892.

The gross earnings of the road to Sept. 30, 1858, were ..... \$800,001.28  
Working expenses, (49 1/4 per cent.) 394,227.84

Net earnings ..... \$405,773.84

**Railroad Traffic.**

There is an improvement, though not very great, in the traffic of most of the railroads of Illinois. Notwithstanding the low prices which prevail for all kinds of produce, the favorable influence of an abundant crop begins to be felt. Large quantities of grain are being collected at Chicago. The two Michigan railroads still show no gain, but a heavy loss upon last year. Nearly all the Eastern and Western movement is done on the lakes and canal, in merchandize as well as in produce. The leading railroads of Ohio are doing quite as well as last year. We presume the receipts of the New York Central are up to those for 1858. We have not heard from the Erie. In the transition state in which the management has been for some time past, we presume not much attention has been paid to the traffic. In other parts of the country, particularly in New England and the South, the railroads are doing remarkably well, the dark spot is mainly confined to the territory lying between New York and Chicago, and embracing Northern Illinois and Wisconsin. Matters here, are still badly out of joint.

**English vs. American Rails.**

There was laid in May last on the South Carolina Railroad, on the straight line below Fort Valley, on a heavy grade, 73 tons of new T rails, weighing 40 1/2 lbs. to the yard—one-half of which was from the Lackawanna Iron Works, and the other half English—the American rail on one side, and the English on the other, for the purpose of testing the wear of the different kinds of iron.

**METALS for RAILROAD COMPANIES.****LUCIUS HART,**

IMPORTER AND DEALER IN METALS,  
4 and 6 Burling Slip, NEW YORK.  
BLOCK TIN. SPELTER. BABBITT METAL.  
ANTIMONY. PIG LEAD. INGOT COPPER.

**RAILROAD IRON.**

THE undersigned, Agents for leading Manufacturers in STAFFORDSHIRE and WALES, are prepared to contract for delivery on board ship at LIVERPOOL, or WELSH port.

C. CONGREVE & SON,  
43 CHURCH ST., NEW YORK.

**FAY, WOOD & CO.,**  
214 Pearl St., NEW YORK,  
MANUFACTURERS OF  
**WHITE LEAD, ZINC,  
COPAL VARNISHES AND  
JAPANS.**  
Also, PUTTY, PAINTS and COLORS.

**FULTON FOUNDRY AND MACHINE WORKS,**  
**P. F. GEISSE,**  
**WELLSVILLE, OHIO.**

STEAM ENGINES of every variety built to order. STEAM BOATS and STEAM FERRY BOATS contracted for in whole.

PUTNAM'S PATENT TURN-TABLES (a very superior and simple table) of all sizes built to order at very reasonable rates.

**Car Wheels** of a quality superior to any ever yet made. I am now manufacturing from the best material, and annealed by a process patented by me in February, 1859, which renders them almost equal to wrought iron. Car Wheels, Steam Engines and all kinds of machinery furnished at as low, if not lower rates than can be found elsewhere.

Rights to manufacture Car Wheels under P. F. GEISSE's annealing process may be obtained from the Patentee at Wellsville, O., or from T. Culbertson, No. 8 Fourth Avenue, N. Y.

Testimonials from the Superintendents and Master Mechanics of the Cleveland and Pittsburgh, Little Miami, and Steubenville and Indiana Railroads, as to the superior quality and durability of these Wheels will be furnished on application.

**RAILROAD IRON.**

**The Crescent Manufacturing Company**  
**WHEELING, VA.**

ARE now prepared to execute, at short notice, orders for Rails of any required pattern and weight, and to re-roll old rails, on the most liberal terms.

Address  
N. WILKINSON, Secy  
St.

**RAILROAD IRON.**

THE undersigned, Agents for the Manufacturers, are prepared to contract to deliver, free on board at shipping ports in England, or at ports of discharge in the United States, RAILS OF SUPERIOR QUALITY, and of weight or pattern as may be required.

**VOSE, LIVINGSTON & CO.**  
9 South William St.  
NEW YORK, Aug. 1, 1858.

**RAILROAD IRON.**  
**THE RENSSELAER IRON COMPANY,**  
**TROY, N. Y.,**

OFFER Rails of their own manufacture deliverable as may be desired by purchasers.

**OLD RAILS**  
received in exchange for new, or for re-manufacturing.  
JOHN A. GRISWOLD, Agent,  
TROY, N. Y.  
New York Agency:  
BUSSING, CROCKER & DODGE,  
32 CHURCH ST.

**MORRIS & JONES & CO.,**  
**IRON MERCHANTS,**  
MARKET AND SIXTEENTH STREETS,  
PHILADELPHIA.

**IRON AND STEEL**  
IN ALL THEIR VARIETIES.

BOILER PLATE, CAR AXLES,  
BOILER RIVETS, RAILROAD IRON,  
CUT NAILS AND SPIKES, PIG IRON, etc.

Having the selling agency of a number of the Rolling Mills, Furnaces and Forges in this State, orders for any description of IRON can be executed.

August 16, 1858.

**CAST STEEL,**

Of First Quality and Warranted.

BAR, TOOL, DRILL, AND DIE STEEL.  
LOCOMOTIVE, CAR AND CARRIAGE CAST STEEL.

**CAR SPRING STEEL.**

Far superior to the ordinary kind.

**FROG PLATES, POINTS.**

Saw, File, Cutlery, Rake, Hoe, Axe and Plough Steel. Gun Metal. Wire and Machinery Steel.

ORDERS FILLED PROMPTLY AND AT LOW PRICES.

**SALTUS & CO.,**

45 CHURCH ST., NEW YORK.

**RAILROAD IRON.**

THE subscriber is prepared to enter into CONTRACTS FOR RAILS delivered at an English port or at a port in the United States.

**JAMES TINKER,**  
54 Exchange Place,  
NEW YORK.

Erie Rails, 57 to 58 lbs. per yard, on hand in NEW YORK and NEW ORLEANS.

**LACKAWANNA IRON AND COAL COMPANY,**  
**SCRANTON, LUZERNE CO., PA.**

BY the completion of the DELAWARE, LACKAWANNA AND WESTERN RAILROAD, this Company are enabled to obtain the MAGNETIC ORES from the most celebrated mines in New Jersey, which used in combination with their native ores, produce a **quality of iron not surpassed.**

These Works have been greatly enlarged the past year, and are, therefore, prepared to execute orders promptly for RAILROAD IRON of any pattern and weight. **Car Axles, Spikes, and Merchant Iron.** They have on hand patterns for T RAILS, of the following weights per lineal yard, viz.—35, 30, 36, 40, 45, 50, 60, 62, and 75 lbs.

**Samples of RAILS and MERCHANT IRON** may be seen at the office of the Company, 46 Exchange Place, N. Y.

Address **J. H. SCRANTON**, President.  
Scranton, Pa.  
or **DAVID S. DODGE**, Treasurer,  
46 Exchange Place,  
NEW YORK.

**RAILROAD IRON.**

THE undersigned, agents for the manufacturers, are prepared to make CONTRACTS FOR RAILS delivered free on board at ports in England, or ex-ship at ports in the United States.

**M. K. JESUP & COMPANY,**  
44 Exchange Place.

New York, 1st June, 1859.

**RAILROAD IRON AND COMMON BARS.**

THE undersigned, sole Agents to Messrs. GUEST & CO., the proprietors of the Dowlais Iron Works, near Cardiff, South Wales, are duly authorized to contract for the sale of their G. L. Railroad Iron, and Common Bars, on most advantageous terms.

**R. & J. MAKIN, 70 Broad St.**

**RAILROAD IRON.**

THE subscribers, Agents for the Manufacturers, are prepared to contract for the delivery of RAILROAD IRON at any port in the United States or Canada, or at a shipping port in Wales.

**WAINWRIGHT & TAPPAN,**  
Boston, June, 1851. 29 Central Wharf.

**RAILROAD IRON.**

CONTRACTS for RAILS, at a fixed price or on commission, delivered at an English port, or at a port in the United States, will be made by the undersigned.

**THEODORE DEHON,**  
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THIS is a new ROLLING MILL, having been working only eighteen months, and confined to work for roads or this line between Buffalo and Chicago in re-rolling old Rails. The capacity is Forty Tons per day. It is well situated for receiving old Rails, either by Railroad or Lake.

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Our SPIKE AND BOLT FACTORY, which was destroyed by fire on the 27th April, has been rebuilt on an enlarged scale, and we are now prepared to make 25 tons SPIKES and 5,000 BOLTS per day. Our Customers may now send us their orders with full confidence that they will be always promptly executed.

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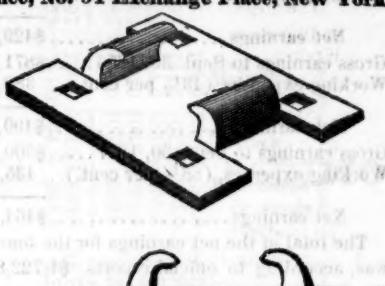
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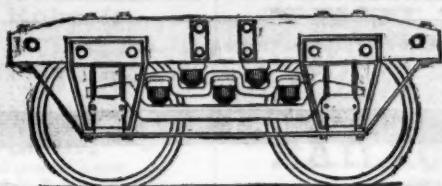
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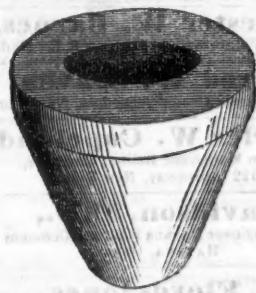
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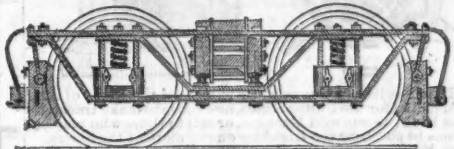
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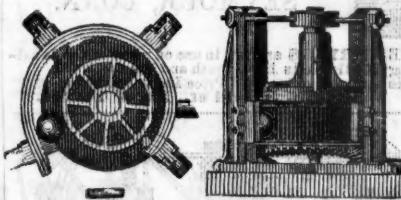


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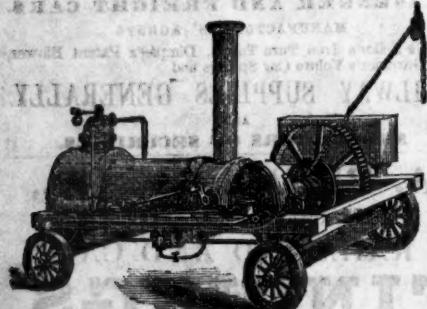
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